

11 October 2006

Securities and Exchange Commission  
Judiciary Plaza,  
450 Fifth Street,  
Washington DC 20549



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SUPPL

**Re: Bionomics Limited - File number 82-34682**

Please see attached provided pursuant to Section 12g3-2(b) file number 82-34682.

Yours sincerely

Stephen Birrell  
CFO & Company Secretary

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FINANCIAL



**ASX ANNOUNCEMENT**  
**11 October 2006**

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**BIONOMICS ANTI CANCER PAPER SELECTED AS 'LATE BREAKING NEWS' AT UK CANCER CONFERENCE**

- **First presentation of preclinical data showing that BNC105 actively inhibits tumour growth**
- **Preclinical data show that BNC105 is the most potent and selective agent identified to date of those that disrupt the blood vessels that support tumour growth**
- **BNC105 is effective on its own, but more so in combination with common chemotherapeutic agents**

Bionomics' Vice President of Cancer Research, Dr Gabriel Kremmidiotis, presented preclinical data on lead anti-tumour compound BNC105 today at the 2006 UK National Cancer Research Institute (NCRI) Cancer conference in Birmingham, UK.

"It is not surprising that our data on the effect of BNC105 in mouse models of human tumours caught the eye of the conference organisers," Dr Kremmidiotis said.

"A single injection of BNC105 at a dose of 10 mg/kg disrupted more than 95% of the blood vessels supplying the tumour.

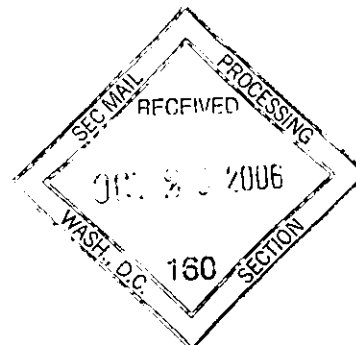
"As a result, tumour growth was inhibited by about 40% in mouse models of both breast and colon cancer. Treatment that combined BNC105 with the commonly used chemotherapeutic agent 5-fluorouracil resulted in 100% inhibition of tumour growth.

"And if we changed the regimen to two injections of BNC105 one week apart at the higher dose of 40 mg/kg, the breast tumours in preclinical models not only stopped growing, but they shrank."

The vascular disruption agents have significant clinical potential in the treatment of cancer because their mechanism of action suggests that they may be applicable to all solid tumours, including those of the colon, lung and breast. The market potential for VDAs has been estimated at US\$5.5 billion.

"One of the striking features of BNC105 is its potency," Dr Deborah Rathjen, CEO of Bionomics said.

"Our data have shown that BNC105 is 15 times more potent than a competing VDA in clinical trials for the treatment of breast cancer."



"The selectivity of BNC105 is also impressive. Its effect on tumour capillaries is about 100 times that on capillaries from normal tissue."

### **About BNC105**

BNC105 is Bionomics' cancer flagship, under development for the treatment of solid tumours. It is a member of the class of compounds known as vascular disruption agents, or VDAs. As solid tumours grow, they need new blood vessels to supply the cancer tissue with oxygen and nutrients. VDAs shut down blood vessels and have the effect of starving the tumour and preventing growth.

A key benefit of BNC105 is the selective targeting of blood vessels in cancers. Agents that target blood vessels are at risk of interfering with the blood supply to healthy tissues as well as the tumour, but studies to date have shown that BNC105 leaves the capillaries supplying healthy tissues intact, probably for the reasons described below:

Capillaries are the smallest of the blood vessels and are the site at which nutrients and other substances are exchanged between tissues and blood. Their very thin walls consist of a single layer of endothelial cells that produce the protein tubulin (the target of BNC105), which is needed for capillary formation. Endothelial cells normally exist in an 'activated' state when forming new capillaries and return to a 'quiescent' state in established capillaries. The endothelial cells forming the capillaries of solid tumours remain activated because they produce higher than normal concentrations of the growth factors that promote the formation of new capillaries.

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### **About Bionomics Limited**

Bionomics (ASX:BNO) discovers and develops innovative therapeutics for cancer and diseases of the central nervous system. Bionomics has small molecule product development programs in the areas of cancer, anxiety, epilepsy and multiple sclerosis. Bionomics' most advanced program, the Vascular Disruption Agent (VDA) program for cancer, is based upon the identification of a novel compound that potently and selectively restricts blood flow to tumours. Bionomics' discovery and development activities are driven by its three technology platforms: Angene®, the company's angiogenesis target and drug discovery platform, incorporates a variety of genomics tools to identify and validate novel angiogenesis targets. MultiCore® is Bionomics' proprietary, diversity orientated chemistry platform for the discovery of small molecule drugs. ionX® is a set of novel technologies for the identification of drugs targeting ion channels for diseases of the central nervous system. For more information about Bionomics, visit [www.bionomics.com.au](http://www.bionomics.com.au)

### ***Factors Affecting Future Performance***

This presentation contains "forward-looking" statements within the meaning of the United States' Private Securities Litigation Reform Act of 1995. Any statements contained in this presentation that relate to prospective events or developments, including, without limitation, statements made regarding Bionomics' development candidate BNC105, its drug discovery programs and pending patent applications are deemed to be forward-looking statements.

Words such as "believes," "anticipates," "plans," "expects," "projects," "forecasts," "will" and similar expressions are intended to identify forward-looking statements.

There are a number of important factors that could cause actual results or events to differ materially from those indicated by these forward-looking statements, including risks related to our available funds or existing funding arrangements, a downturn in our customers' markets, our failure to introduce new products or technologies in a timely manner, regulatory changes, risks related to our international operations, our inability to integrate acquired businesses and technologies into our existing business and to our competitive advantages, as well as other factors. Results of studies performed on competitors products may vary from those reported when tested in different settings.

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